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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,190	07/25/2003	Kerry T. Ward	SC 035	2693

7590

09/29/2005

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EXAMINER
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ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/627,190

Applicant(s)

WARD ET AL.

Examiner

Jessica L. Rossi

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/4/05, 12/23/04, 5/24/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-20, drawn to a method for making a glued-together screen assembly, classified in class 156, subclass 292.
  - II. Claim 21, drawn to a method for making a glued-together screen assembly, classified in class 156, subclass 311.
  - III. Claims 22-23, drawn to a screen assembly, classified in class 209, subclass 311.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the layers of screening material could be joined without using a heating apparatus. The subcombination has separate utility such as a screen assembly, as evidenced by claim 21.

3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the screen assembly could be made without heating and/or using a heating apparatus.

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4. Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the screen assembly could be made without using a cooling apparatus.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. This application contains claims directed to the following patentably distinct species of the claimed invention: upon election of **Group I**, Applicant must make a further species election.

**Species A** (appears to be claims 6-9), drawn to the secondary member being a screening material.

**Species B** (appears to be claims 10-14 and 19-20), drawn to the secondary member being a frame.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. During a telephone conversation with Mr. McClung on 10/26/04 a provisional election was made **without** traverse to prosecute the invention of Group I and Species B, claims 1-5 and 10-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-9 and 21-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Information Disclosure Statement***

9. The information disclosure statement filed 1/4/05 is a duplicate of the information disclosure statement filed 5/24/04; therefore, the references listed on the 1/4/05 statement have been crossed-off to avoid confusion.

***Claim Objections***

10. Claims 1, 15, 17 and 19 are objected to because of the following informalities:

Claim 1, line 6: --a-- should be inserted before "heating."

Claim 15, line 4: --a-- should be inserted after "on."

Claim 17, line 4: --a-- should be inserted after "on."

Claim 19, line 6: --a-- should be inserted before "heating."

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 1-5, 10-14 and 19 are rejected under 35 U.S.C. 102(a) as being anticipated by Adams et al. (US 2003/0010437).

With respect to claim 1, the reference teaches making a glued-together screen assembly for a vibratory separator by providing at least one layer of screening material with a glue pattern on its surface, placing the at least one layer of screening material on a heating platen, heating the at least one layer of screening material with the heating platen, placing a secondary member

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(frame, plate, etc.) on the at least one layer of screening material, and heating together the at least one layer of screening material and the secondary member to combine them and form a first screen assembly (sections [0007], [0009], [0030], [0043], [0045], [0049]).

Regarding claim 2, the reference teaches such (section [0030]).

Regarding claims 3-5, the reference teaches such (sections [0045], [0038]).

Regarding claims 10-14, the reference teaches such (sections [0032], [0035]).

With respect to claim 19, it is noted this claim is combination restating all the limitations in claims 1 and 10.

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-3, 5, 10-14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Winkler et al. (US 2002/0000399).

With respect to claim 1, the reference teaches making a glued-together screen assembly for a vibratory separator by providing at least one layer of screening material with a glue pattern on its surface, placing the at least one layer of screening material on a heating apparatus (note bottom of oven would also be heated), heating the at least one layer of screening material with the heating apparatus, placing a secondary member (plate and/or frame) on the at least one layer of screening material, and heating together the at least one layer of screening material and the secondary member to combine them and form a first screen assembly (sections [0172], [0175-0176], [0232-0234], [0242], [0249-0250], [0295-0296]).

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Regarding claim 2, the reference teaches such (section [0295]).

Regarding claims 3 and 5, the reference teaches such (sections [0172], [0175-0176]).

Regarding claims 10-14, the reference teaches such (sections [0175-0176], [0248]).

With respect to claim 19, it is noted this claim is combination restating all the limitations in claims 1 and 10.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. as applied to claim 15 above and further in view of Umezawa et al. (US 6398899).

Regarding claim 15, Adams teaches using a mechanical cooling apparatus to cool the heated screen assembly but is silent as to what the apparatus is (section [0047]); therefore, the reference is silent as to removing the first screen assembly from the heating platen and placing it on a first cooling apparatus.

It is known in the art to bond a screening material (wire mesh) to a secondary member by pressing the same between heating platens, removing the heated assembly from the heating platens and then placing the assembly between cooling platens, as taught by Umezawa (column 5; lines 43-53; column 14, line 65 – column 15, line 4). Therefore, it would have been obvious to have the mechanical cooling apparatus of Adams be cooling platens such that the heated assembly is removed from the heated platen and then placed on the cooling platen because such



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is known in the art, as taught by Umezawa, where cooling the assembly in an apparatus that is separate from the heating apparatus allows for another assembly to be heated while cooling of the already heated assembly takes place.

17. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. and Umezawa et al. as applied to claim 16 above, and further in view of Beck (US 3514834).

Regarding claims 16-18, Adams in view of Umezawa is silent as to such limitations. However, it is well known and conventional in the manufacturing industry to adhesively bond a first member to a second member using a series of stations where a cooling station (A, C) is positioned on each side of a heating station (B) so that cooling of an already heated assembly can take place while assembling and/or heating of a second, third, etc. assembly is taking place in order to expedite the manufacturing process, as taught Beck (Figure 1; column 1, lines 15-16 and 31-38; column 2, lines 56-57; column 6, lines 15-27).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to use as series of assembly stations where cooling stations are positioned on each side of a heating station such that the process of Adams in view of Umezawa can take place in the manner being claimed by Applicant because such is known in the manufacturing art, as taught by Beck, and expedites the manufacturing process.

18. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. as applied to claim 19 above.

Regarding claim 20, it would have been obvious to place a secondary member on the frame of Adams because such is notoriously well known and conventional on the vibratory

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separator art (i.e. join screen and frame assembly to vibratory separator machine, bond end caps or strips to screen and frame assembly).

19. Claims 1-3, 5, 10-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winkler et al. in view of the collective teachings of Wojciechowski (US 5636749) in view of Cravello (US 5690826).

With respect to claim 1, if it is not taken that the oven of Winkler is a heating apparatus wherein the screening material is placed thereon, it would have been obvious to the skilled artisan to use opposed heated press platens as an alternative to an oven such that the screening material is placed on the heating apparatus because such is a known bonding apparatus in the screen assembly art, as taught by the collective teachings of Wojciechowski (column 2, lines 48-49; column 3, lines 65-67; column 4, lines 5-45) and Cravello (column 7, lines 32-40), and such an apparatus allows for heating and pressing to be accomplished by the same apparatus – it being noted that Winkler wants both heat and pressure to be applied to the screening material and the secondary member to join the same (section [0172], especially last sentence).

20. Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winkler et al. as applied to claims 1 and 19 above.

Regarding claim 4, selection of a particular glue would have been within purview of the skilled artisan; it being noted that moisture-curing hot melt glue is well known and conventional.

Regarding claim 20, it would have been obvious to place a secondary member on the frame of Winkler because such is notoriously well known and conventional on the vibratory separator art (i.e. join screen and frame assembly to vibratory separator machine, bond end caps or strips to screen and frame assembly).

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21. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winkler et al., or Winkler et al. and the collective teachings of Wojciechowski and Cravello, as applied to claim 1 above and further in view of Umezawa et al.

Regarding claim 15, Winkler is silent as to a cooling apparatus; therefore, the reference is silent as to removing the first screen assembly from the heating apparatus and placing it on a first cooling apparatus.

It is known in the art to bond a screening material (wire mesh) to a secondary member by placing the assembly on a heating apparatus, removing the heated assembly from the heating apparatus and then placing the assembly on a cooling apparatus, as taught by Umezawa (column 5, lines 43-53; column 14, line 65 – column 15, line 4). Therefore, it would have been obvious to place the heated assembly of Winkler on a cooling apparatus such that the heated assembly is removed from the heating apparatus and then placed on the cooling apparatus because such is known in the art, as taught by Umezawa, where cooling expedites the bonding process.

22. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winkler et al., or Winkler et al. and the collective teachings of Wojciechowski and Cravello, further in view of Umezawa et al. as applied to claim 15 above, and further in view of Beck.

Regarding claims 16-18, Winkler is silent as to such limitations. However, it is well known and conventional in the manufacturing industry to adhesively bond a first member to a second member using a series of stations where a cooling station (A, C) is positioned on each side of a heating station (B) so that cooling of an already heated assembly can take place while assembling and/or heating of a second, third, etc. assembly is taking place in order to expedite

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the manufacturing process, as taught Beck (Figure 1; column 1, lines 15-16 and 31-38; column 2, lines 56-57; column 6, lines 15-27).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to use as series of assembly stations where cooling stations are positioned on each side of a heating station such that the process of Winkler can take place in the manner being claimed by Applicant because such is known in the manufacturing art, as taught by Beck, and expedites the manufacturing process.

23. Claims 1-5, 10, 12-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. (US 6186337) in view of the collective teachings of Wojciechowski and Cravello.

With respect to claim 1, Adams teaches making a glued-together screen assembly for a vibratory separator by providing at least one layer of screening material 14/24 with a glue pattern on its surface (column 6, lines 23-26 and 37-40; column 7, lines 53-56), placing a secondary member (screening material 16/26, frame, plate, etc. – column 6, lines 55-59, column 7, lines 47-56), and combining the screening material and the secondary member to form a first screen assembly. The reference is silent as to placing the at least one layer of screening material on a heating apparatus, heating the at least one layer of screening material with the heating apparatus, and heating together the at least one layer of screening material and the secondary member to combine them and form the first screen assembly.

It is known in the art to adhesively bond at least one layer of screening material to a secondary member by placing the at least one layer of screening material on a heating apparatus, heating the at least one layer of screening material with the heating apparatus, and heating

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together the at least one layer of screening material and the secondary member (other layers of screening material, frame/plate, etc.) to form a first screen assembly, as taught by the collective teachings of Wojciechowski (column 3, lines 47-67; column 4, lines 35-55) and Cravello (column 7, lines 32-45).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to place the at least one layer of screening material of Adams on a heating apparatus, heat the at least one layer of screening material with the heating apparatus, and heat together the at least one layer of screening material and the secondary member to form the first screen assembly because such is known in the art, as taught by the collective teachings of Wojciechowski and Cravello, where heating causes the glue to melt/spread thereby forming a better bond between the at least one layer and secondary member.

Regarding claim 2, Adams teaches such (column 6, lines 45-47).

Regarding claim 3, Adams in view of the collective teachings of Wojciechowski and Cravello teaches such.

Regarding claim 4, selection of a particular glue would have been within purview of the skilled artisan; it being noted that moisture-curing hot melt glue is well known and conventional.

Regarding claim 5, Adams in view of the collective teachings of Wojciechowski and Cravello teaches such.

Regarding claim 10, Adams teaches such (column 6, lines 55-57).

Regarding claim 12, Adams is silent as to the frame being coated with adhesive material. It would have been obvious to coat the frame of Adams with adhesive material because such is

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known in the art, as taught by Wojciechowski (column 2, lines 48-49; column 4, lines 35-55), where this produces a better bond between the screening material and the frame.

Regarding claims 13-14, Adams in view of Wojciechowski teaches such.

With respect to claim 19, this claim is a combination restating all the limitations set forth in claims 1 and 10.

Regarding claim 20, Adams teaches such (column 6, lines 55-57).

24. Claims 1-5, 10-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. '337, Winkler et al., and the collective teachings of Wojciechowski and Cravello.

With respect to claim 1, if it is not taken that Adams teachings the glue being in a pattern, it would have been obvious to apply the glue to the screening material in a pattern because such is known in the art, as taught by Winkler (sections [0295-0296]), where this reduces the amount of adhesive used thereby reducing the risk of excess adhesive clogging the openings in the screening material.

Regarding claim 11 (and 12-14), it is noted that the rejections set forth in paragraph 23 above were referring to the perforated metal plate of Wojciechowski, which the reference equates to a frame (column 2, lines 48-49), as the secondary member. It is noted that Adams teaches a perforated metal plate can be used in addition to or in place of a frame (column 6, lines 55-57). Therefore, it would have been obvious to the skilled artisan at the time of the invention to use a frame that comprises an array of tubular members and that is coated with an epoxy adhesive material so that the adhesive material flows onto the at least one layer of screening

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material during the heating step for the secondary member of Adams because such is known in the art, as taught by Winkler (sections [0175-0176], [0248]).

25. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. '337, Winkler et al. and the collective teachings of Wojciechowski and Cravello as applied to claim 1 above, and further in view of Umezawa et al.

Regarding claim 15, Adams in view of the collective teachings is silent as to a cooling apparatus; therefore, the reference is silent as to removing the first screen assembly from the heating apparatus and placing it on a first cooling apparatus.

It is known in the art to bond a screening material (wire mesh) to a secondary member by placing the assembly on a heating apparatus, removing the heated assembly from the heating apparatus and then placing the assembly on a cooling apparatus, as taught by Umezawa (column 5, lines 43-53; column 14, line 65 – column 15, line 4). Therefore, it would have been obvious to place the heated assembly of Adams in view of the collective teachings on a cooling apparatus such that the heated assembly is removed from the heating apparatus and then placed on the cooling apparatus because such is known in the art, as taught by Umezawa, where cooling expedites the bonding process.

26. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. '337, Winkler et al., the collective teachings of Wojciechowski and Cravello, and Umezawa et al. as applied to claim 15 above, and further in view of Beck.

Regarding claims 16-18, Adams in view of the collective teachings is silent as to such limitations. However, it is well known and conventional in the manufacturing industry to adhesively bond a first member to a second member using a series of stations where a cooling

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station (A, C) is positioned on each side of a heating station (B) so that cooling of an already heated assembly can take place while assembling and/or heating of a second, third, etc. assembly is taking place in order to expedite the manufacturing process, as taught Beck (Figure 1; column 1, lines 15-16 and 31-38; column 2, lines 56-57; column 6, lines 15-27).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to use as series of assembly stations where cooling stations are positioned on each side of a heating station such that the process of Adams in view of the collective teachings can take place in the manner being claimed by Applicant because such is known in the manufacturing art, as taught by Beck, and expedites the manufacturing process.

### ***Double Patenting***

27. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

28. Claims 1-5, 10-14 and 19-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,932,883 (note US 2003/0010437 applied in paragraph 12 above issued as this patent).

Although the conflicting claims are not identical, they are not patentably distinct from each other



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because the limitations set forth in the '883 patent encompass the limitations set forth in the copending application.

29. Claim 15 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,932,883 in view of Umezawa et al.

Please refer to the rejections of claim 15 above.

30. Claims 16-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,932,883 in view of Umezawa et al. and further in view of Beck.

Please refer to the rejections of claims 16-18 above.

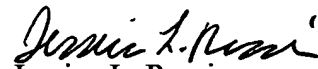
#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom G. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jessica L. Rossi  
Primary Examiner  
Art Unit 1733